im240 Wireless Modem User's Guide

for Microsoft® Windows® 2000, Windows ME®, Windows NT®, Windows® XP, Pocket PC 2002, and Pocket PC 2003

NNTN5927A

Contents

Getting Started 1
im240 Wireless Modem 1
Package Contents 1
Supported operating systems 1
Your account and coverage area 1
im240 Wireless Modem Software 2
Customer Support 2

SIM Card 3
Inserting and Removing a SIM Card 3
SIM Card Personal Identification Number (PIN) 4
Enabling the SIM PIN 4
Invalid PIN 4
Valid PIN 4
Changing the SIM PIN 5
Disabling the SIM PIN 5
Unlocking the SIM PIN 5

Modem Setup 6
When to Insert the Modem 6
System Requirements 6
Preparing the Modem for Setup 7
Installing on Windows ME 7
Installing on Windows 2000, and XP 7
Installing on Windows NT 8
Installing on a Pocket PC 11

Using the Modem 12
Using the Detachable Antenna 13
Using the External Antenna 13
Turning on the Modem 14
Compact Mode 14

Internet 16
Connecting to the Internet 16
Disconnecting from the Internet 17

Data Connectivity 17
Connecting via Packet Data 18
Connecting via Circuit Data 18

Modem Status 18
Launching the im240 Wireless Modem Dashboard 18
The im240 Wireless Modem Dashboard Window 19
Common Functionality 19
Getting Status Information 20
Status Light 20

Uninstalling Modem Software 21
Laptop 21
Pocket PC 21

Troubleshooting 22
Diagnostics 22
Registration 23
Manually Configuring im240 Wireless Modem 24

Safety and General Information 25
RF Operational Characteristics 25
Portable Radio Product Operation and EME Exposure 25
Electro Magnetic Interference/Compatibility 27
Medical Devices 28
Operational Warnings 28
Operational Cautions 29

MOTOROLA LIMITED WARRANTY 30

Patent and Trademark Information 33

Index 34

DECLARATION OF CONFORMITY

Per FCC CFR 47 Part 2 Section 2.1077(a)

Responsible Party Name: Motorola, Inc.

Address: 8000 West Sunrise Boulevard
Plantation, FL 33322 USA
Phone Number: 1 (800) 453-0920

Hereby declares that the product:

Product Name: *im*240

Model Number: H70UAA9RR1AN

Conforms to the following regulations:

FCC Part 15, subpart B, section 15.107(a), 15.107(d) and section 15.109(a)

Class B Digital Device

As a personal computer peripheral, this device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Getting Started

im240 Wireless Modem

Thank you for purchasing the Motorola im240 Wireless Modem.

The im240 Wireless Modem lets you perform important laptop computer or Pocket PC activities, like connecting to the internet.

The im240 Wireless Modem offers access to the internet through the iDEN network.

Package Contents

Your im240 Wireless Modem package contains the following:

- im240 Wireless Modem card
- protective jewel case
- SIM (Subscriber Identity Module) card
- external antenna
- detachable antenna
- Installation CD containing the im240 Wireless Modem Dashboard software and this installation guide (The installation CD is located inside the front cover of this guide).

Supported operating systems

The im240 Wireless Modem works in:

- Microsoft® Windows® 2000
- Windows ME®
- Windows NT® (Service Pack 4 or later)
- Windows XP®
- Pocket PC 2002
- Pocket PC 2003

Your account and coverage area

Note: If you purchased the im240 Wireless Modem from a iDEN service provider, you may already have an account. Otherwise, your retailer should be able to provide you with the names of companies that provide this service.

Companies that operate iDEN networks and provide access to those networks are called service providers. You must have an account with a iDEN service provider that offers iDEN service to use the im240 Wireless Modem.

When you obtain your account, you will be given a SIM card. The SIM card contains account information and must be inserted in the im240 Wireless Modem anytime you use it.

Before you can use the im240 Wireless Modem, you must install the im240 Wireless Modem software and ensure that your im240 Wireless Modem is configured to use your account. Instructions on completing these steps are provided in the chapters that follow.

Once installed and configured, you can connect to the Internet with the im240 Wireless Modem in any area in which you can obtain iDEN service. Your ability to obtain iDEN service depends on these factors:

- Proximity to a iDEN network—You must be within the coverage area of an iDEN network on which iDEN has been implemented, in order to use the im240 Wireless Modem.
- Service provider—If you are within the coverage area of a network that is not operated by your own service provider, you can only obtain service if there is a roaming agreement between your service provider and the network operator.
- Account provisions—Your account may restrict your usage to certain networks or limit the amount of time you can use the network.

Most service providers have coverage maps on their web sites.

im240 Wireless Modem Software

The im240 Wireless Modem comes with the following software:

- The Dashboard software and driver software that allows you to manage the im240 Wireless Modem and monitor your connections between the im240 Wireless Modem and your Windows operating system.

Customer Support

For technical support, contact your service provider. Before you call, make a note of the exact problems and error messages you encountered.

Additional information for iDEN Wireless Data Services can be found on the Motorola iDEN web site at: http://www.motorola.com/iDEN/support

SIM Card

Inserting and Removing a SIM Card

To insert the SIM card:

1. Turn the unit over, so that the antenna ferrule is at the upper right corner.
2. Gently insert the SIM card with the gold contacts facing down and with the clipped corner positioned in the lower left hand corner of the card.
3. Gently push the SIM card in until it stops moving.

To remove the SIM card:

1. Remove the im240 Wireless Modem from your laptop or Pocket PC and turn it over, so that the antenna is at the upper right corner.
2. Place a finger on the SIM card and slide the SIM card out.
3. When the SIM card pops out, gently hold the two sides with your fingers and take out the SIM card.

After installing the im240 Dashboard software:

Note: The following features can be accessed after the installation of the Dashboard application.

When you insert the wireless modem into your laptop or Pocket PC, you may be prompted to enter a SIM PIN, if it is enabled.

If your wireless modem is set to prompt you to enter a SIM PIN, your default SIM PIN is 0000. It is recommended that you change your SIM PIN to prevent fraudulent use of the SIM card.

If your wireless modem is not set to prompt you to enter a SIM PIN, it is recommended that you enable the SIM PIN security feature to prevent fraudulent use of the SIM card. Disabling your SIM PIN allows anyone to use your wireless modem.

SIM Card Personal Identification Number (PIN)

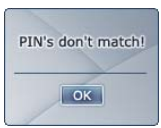
You can enable or disable the SIM PIN by selecting the appropriate radio button:

Enabling the SIM PIN

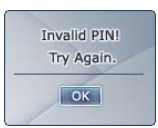
When you try to enable the SIM PIN, you are prompted to enter your SIM PIN and verify it.

Invalid PIN

If the 2 pin numbers don't match, you will be presented with a pop up saying, "PIN's don't match!"



If the SIM PIN is invalid when you click OK, a pop up is displayed with the prompt, "Invalid PIN! Try again."



Valid PIN

If the SIM PIN is valid, the SIM PIN is enabled and if you want, you can choose to disable the SIM PIN or change the SIM PIN.

Changing the SIM PIN

You can change the SIM PIN, selecting Change SIM PIN. The dashboard will prompt you to enter the old SIM PIN, the new SIM PIN, and to verify the new SIM PIN.

Note: You can only change the SIM PIN if the SIM PIN is enabled.

Disabling the SIM PIN

To disable the SIM PIN, you must enter your SIM PIN.

- Once you enter the correct SIM PIN, the SIM PIN will be disabled.

Unlocking the SIM PIN

If you enter an incorrect PIN 3 times, your SIM card will lock. A pop-up will instruct you to call iDen customer service to unlock your SIM Card.

You can then choose to either cancel this action or call customer service to unlock the SIM Card.

If you cancel this action, the Dashboard closes. The pop up window will re-appear everytime you start Dashboard until you call customer service to unlock your SIM Card.

When you call customer service, you will be given a code to unlock your SIM Card. Once you enter in the code, you will need to enter a new SIM PIN. The new PIN is entered and verified, you will have full access to Dashboard.

Modem Setup

The im240 Wireless Modem Installation and Application Software lets your im240 Wireless Modem transmit data from your laptop or Pocket PC. This software lets you control the wireless modem's functions.

When to Insert the Modem

Important: DO NOT INSERT THE WIRELESS MODEM PRIOR TO INSTALLING THE WIRELESS MODEM DRIVER AND DASHBOARD SOFTWARE.

System Requirements

To install the im240 Wireless Modem Installation and Application Software onto your laptop, you need the following:

- An im240 Wireless Modem
- The im240 Wireless Modem Installation and Application Software CD-ROM (provided in your package)
- An IBM-compatible PC with:
  - CD-ROM or DVD drive
  - Available PCMCIA Type II slot
  - One of these operating systems installed: Windows 2000, Windows ME, Windows NT, or Windows XP.

    Important: You must have administrative rights to install onWindows NT, Windows 2000 or Windows XP.
  - 25 MB free hard-disk space
  - Recommended: Mouse or compatible pointing device
- For use with a Pocket PC:

  Note: If your Pocket PC does not have a PCMCIA Type II slot, you will need an adapter to use the wireless modem.
  - One of these operating systems installed on your Pocket PC: Pocket PC 2002, or Pocket PC 2003
  - Microsoft ActiveSync 3.1 or higher
  - Minimum 3 MB of addressable RAM
- A packet data account with an iDEN service provider

Preparing the Modem for Setup

Before setting up your im240 Wireless Modem:

- Confirm that the SIM card is in place. See “SIM Card” on page 3

Installing on Windows ME

Use these instructions if you are installing onto a laptop running Windows ME. The installation wizard will prompt you to insert the im240 Wireless Modem into the PCMCIA slot.

1 Turn on your laptop and start Windows.

2 Insert the im240 Wireless Modem Installation and Application Software CD in your CD-ROM or DVD drive.

- If the im240 Wireless Modem and Installation and Application Software installation program does not start automatically, select Start, Run, and then type ***d*:\setup.exe**, where ***d*** refers to the letter of your CD-ROM or DVD drive.

3 Use the **Next** and **Back** buttons to navigate through the wizard.

Using the default settings for the Destination Location and Program Folder is recommended unless you have special requirements and an advanced understanding of PC configuration.

4 When prompted, choose **Laptop** as your installation platform.

5 When prompted, insert your wireless modem into the available PCMCIA Type II slot. Click **Ok**.

6 Upon completion of the installation, you will be prompted to reboot.

Installing on Windows 2000, and XP

Use these instructions if you are installing on to a laptop running Windows 2000 or Windows XP. The installation wizard will prompt you to insert the im240 Wireless Modem into the PCMCIA slot.

Note: You must have administrative rights to install on Windows 2000 or Windows XP.

Windows XP Only: In System Properties, right click on your My Computer icon then left click on Properties. Select the Hardware tab, click on Driver Signing. If the driver signing option is set to Block, then the Installation program will not be able to install the driver.

1 Turn on your laptop and start Windows. If you are running Windows 2000 or XP log in with administrative rights.

2 Insert the im240 Wireless Modem Installation and Application Software CD in your CD-ROM or DVD drive.

- If the im240 Wireless Modem and Installation and Application Software installation program does not start automatically, select Start, Run, and then type ***d*:\setup.exe**, where ***d*** refers to the letter of your CD-ROM or DVD drive.

3 Use the **Next** and **Back** buttons to navigate through the Wizard.

Using the default settings for the Destination Location and Program Folder is recommended unless you have special requirements and an advanced understanding of PC configuration.

4 When prompted, choose **Laptop** as your installation platform.

5 If the Software Installation window appears, you can safely ignore the warning. Click **Continue Anyway**, each time it appears.

6 When prompted, insert your wireless modem into the available PCMCIA Type II slot. Click **Ok**.

Note: For Windows XP only

- For **Windows XP SP2** only, you will have a wizard which wants to know if Windows can connect to Windows update to search for software Select “No, not this time” and click Next.
- When the “Found New Hardware Wizard” window displays, Select the “Install the software automatically” Recommended box, and click Next.
- On the next Wizard window highlight the “Motorola im240 PC Card modem” and click next.
- When the Wizard has finished you will get a window which states that “The wizard has finished installing the software for the Motorola im240 PC Card modem”, Click on the Finish button.

7 Upon completion of the installation, You will be instructed to remove the modem from the laptop. Do so then click on the OK button.

8 You will be instructed to insert the modem into the laptop. Do so and then click on the OK button.

9 When prompted, restart Windows.

Installing on Windows NT

Use these instructions if you are installing on to a laptop running Windows NT.

1 Turn on your laptop.

2 Log on as Administrator.

3 Insert the im240 Wireless Modem Installation and Application Software CD in your CD-ROM or DVD drive.

- If the im240 Wireless Modem and Installation and Application Software installation program does not start automatically, select Start, Run, and then type ***d*:\setup.exe**, where ***d*** refers to the letter of your CD-ROM or DVD drive.

4 Use the **Next** and **Back** buttons to navigate through the Wizard.

Using the default settings for the Destination Location and Program Folder is recommended unless you have special requirements and an advanced understanding of PC configuration.

5 When prompted, users will be required to enter the COM port and the IRQ that will be assigned to the im240 Wireless Modem. To get the next available COM port, go to Control Panel and open Ports. Select a COM port that is not used. For example, if ports displays COM1, then select COM2/COM3/COM4.

Note: To find an available unused IRQ, go to:

- Start > Programs > Administrative Tools > Windows NT Diagnostics.
- Click on the Resources Tab and click the IRQ button in that property page.
- This page lists all the IRQs that are currently in use.
- Select an IRQ from this list 3-7, 9-12, and 15 that is not in use, for example 10.
- After entering the COM port and IRQ, the im240 Wireless Modem is installed as a COM port

6 When prompted, shut down Windows.

7 Turn on your laptop and start Windows.

8 After restarting you will be prompted to install the wireless modem.

9 With the SIM card inserted into the im240 Wireless Modem, and the label of the im240 Wireless Modem facing up, carefully insert the im240 Wireless Modem into your laptop card slot.

10 On the next page, click Have Disk to browse to the location where you installed the Dashboard and select the subfolder "Driver". Click OK and Click Next.

Installing the modem driver

1. In the Control Panel, double click the Modems icon. If the Install New Modem wizard opens, skip to step 3. Otherwise, proceed to step 2.
2. Click the Add button to open the Install New Modem wizard.
3. Select Don't detect my modem, I will select it from a list and click **Next**.
4. Select the Have Disk button.
5. Enter ***d***:\Drivers\WinNT\ where ***d*** is the drive letter for your CD-ROM drive and click **OK**.
6. On completion of this step, the modem driver is installed and you can proceed to configure the im240 Wireless Modem to use your account (if it was not preactivated).
7. Verify that im240 Wireless Modem is displayed and click **Next**.
8. Select the port that you installed in the previous step. Click **Next**.
9. Click **Finish**.

Setting up Remote Access Service (RAS)

1. The Network control panel opens. In the Network window, select the Services tab. Within the Services tab, select Remote Access Service. Click Properties
2. The Remote Access Setup window opens. Click **Add**.
3. The Add RAS Device window opens. Ensure the COM port for your im240 Wireless Modem is selected from the drop-down list. Then click **OK**.
4. The Remote Access Setup window now shows the added COM port. Verify that the im240 Wireless Modem was added to the list of RAS devices, verify that TCP/IP is the only dial out network protocol by clicking Network and then Protocols. Then click **Continue**.
5. In the Network Services Selection window, click **Close**.
6. The Network Settings Change window opens prompting you to restart your laptop. Click **Yes** to restart.
7. The im240 Wireless Modem is now installed.

   Note: Dial up networking must be installed on the Computer for Dashboard to install properly. Follow the steps for "Installing the modem driver" before using the Dashboard.

Reinstalling the Dashboard with a different IRQ

If the message, “Communication Failed!...” occurs when you start the Dashboard, a possible reason is that you have assigned an interrupt request, IRQ, to the im240 Wireless Modem that has been assigned to another device.

To change the interrupt assigned to the im240 Wireless Modem:

1. Reinstall the im240 Wireless Modem Dashboard.
2. It is not necessary to uninstall the Dashboard.
3. When prompted, enter the COM port and assign a different IRQ to the im240 Wireless Modem. To get the next available COM port, go to Control Panel and open Ports. Select a COM port that is not used. For example, if ports displays COM1, then select COM2/COM3/COM4.

   Note: To find an available unused IRQ, go to:

   - Start > Programs > Administrative Tools > Windows NT Diagnostics.
   - Click on the Resources Tab and click the IRQ button in that property page.
   - This page lists all the IRQs that are currently in use.
   - Select an IRQ from this list 3-7, 9-12, and 15 that is not in use, for example 10.
   - After entering the COM port and IRQ, the im240 Wireless Modem is installed as a COM port
4. When prompted, shut down Windows.
5. Turn on your laptop and start Windows.
6. After restarting you will be prompted to install the wireless modem.
7. With the SIM card inserted into the im240 Wireless Modem, and the label of the im240 Wireless Modem facing up, carefully insert the im240 Wireless Modem into your laptop card slot.
8. On the next page, click Have Disk to browse to the location where you installed the Dashboard and select the subfolder "Driver". Click OK and Click Next.

Installing on a Pocket PC

1. Connect your Pocket PC to your laptop or desktop computer using the cable or cradle provided with your Pocket PC.

Note: If you are installing using ActiveSync, the host PC must have:

- A CD-ROM drive
- ActiveSync version 3.1 or higher

Microsoft ActiveSync must indicate that the connection has been established.

2 Insert the im240 Wireless Modem Installation and Application Software CD-ROM in your CD-ROM or DVD drive.

3 If the im240 Wireless Modem and Installation and Application Software installation program does not start automatically, select Start, Run, and then type ***d*:\setup.exe**, where ***d*** refers to the letter of your CD-ROM or DVD drive.

4 Use the **Next** and **Back** buttons to navigate through the Wizard.

Using the default settings for the Destination Location and Program Folder is recommended unless you have special requirements and an advanced understanding of PC configuration.

5 When prompted, select **Pocket PC**. Click Next.

6 When prompted, insert your im240 Wireless Modem into the available PCMCIA Type II slot.

Note: Some Pocket PC's may not be compatible with a PCMCIA Type II adapter. Check with your Pocket PC manufacturer.

7 To start the im240 Wireless Modem Dashboard Application, click the im240 Wireless Modem icon on your programs desktop.

Using the Modem

Before using the im240 Wireless Modem, you must insert it into your laptop's PCMCIA slot or connect it to your Pocket PC's PCMCIA slot, if available. Then connect the detachable antenna or external antenna. You must register the im240 Wireless Modem with your service providers' network before you use it. Your im240 Wireless Modem registers automatically when turned on.

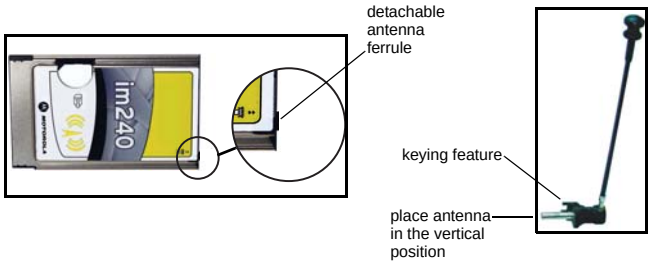
Note: The initial registration may take an extended amount of time to complete. The im240 Wireless Modem will need to retrieve configuration data from the system.

The Dashboard displays the status of the modem, Powering On, Seeking Signal, Registering, and Dialing to Network

If the SIM PIN requirement for your im240 Wireless Modem is enabled, you will be prompted to enter your SIM PIN now. (See “SIM Card Personal Identification Number (PIN)” on page 4.)

Using the Detachable Antenna

To use the detachable antenna, follow the diagrams below.

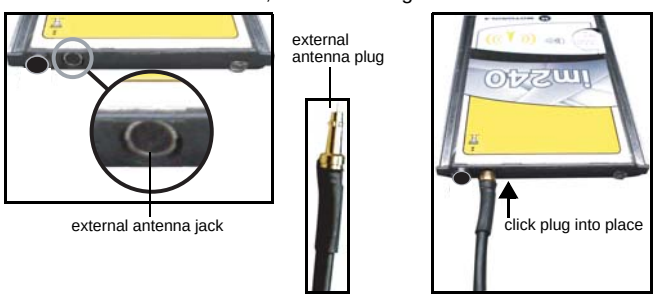


The detachable antenna is keyed to allow connection only in a vertical position. Align keying features as you insert the antenna feed into the ferrule. Push in until the snap ring engages.

To remove the antenna from the card DISCONNECT THE MODEM USING THE DASHBOARD to assure the transmitter is not operating. Then hold the card in the slot and pull the base of the antenna straight out from the card.

Using the External Antenna

To use the external antenna, follow the diagrams below.



When removing the rf cable hold the card in the slot to prevent pulling the card out then pull the cable plug straight out away from the card.

Use the external antenna whenever experiencing decreased signal strength.

Important: When using any approved accessory antenna, position it at least eight inches (20 cm) from any part of any person.

Turning on the Modem

When you enter the Setup screen, the im240 Wireless Modem will be powered on. The LED on the im240 Wireless Modem will turn red. The red LED is a good indication that things are happening correctly. This ensures an instantaneous response from the SIM Card and Diagnostic sections.

A pop up will appear saying, “Modem is Starting”. The pop up will remain until the im240 Wireless Modem is successfully powered on.

When the Setup tab is clicked, all information will be accessible except for the SIM PIN and Diagnostic sections. These sections will be grayed out until the modem powers up successfully.

Note: If the im240 Wireless Modem doesn’t power on, an alert will appear. You can then try to troubleshoot the problem or close the window. However, you will only be able to view default information and won’t be able to connect to the network. If you press the Connect button, the “Modem is Starting...” pop up will appear.

Note: Always disconnect from an active modem session before removing the im240 Wireless Modem. (See “Disconnecting from the Internet” on page 17).

Compact Mode

Switching to Compact Mode

You can switch the Dashboard to a compact View mode. This view is available for both the Disconnect and Connected modes.

You can switch to Compact mode by either:

- Pressing in the upper-left hand corner of the application
- Pressing the Change View button in the upper-left hand corner
- Selecting ‘View Compact’ from the contextual menu

When the user switches to Compact mode, the main window will be shown in Compact mode. The detailed setup screen mode will be unaffected. This means:

- In Disconnect mode: if you have the Setup window open, the window will remain open
- In Connected mode: if you have the Details window open, the window will remain open

When the main area is compacted, the following functionality is available:

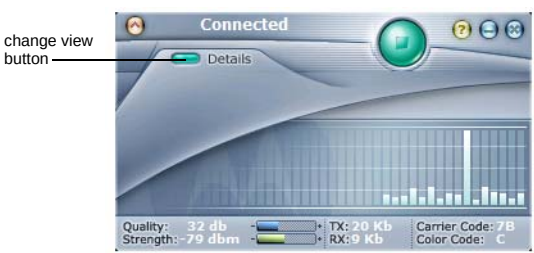
- All common functionality
- Mode specific functionality
  - ‘Disconnect’ and ‘Details’ in Connected mode
  - ‘Connect’ and ‘Setup’ in Disconnect mode

To compact the main window, click the far left arrow button. To expand the main window click the far left arrow button again.

Switching back to Normal Mode

You can return to normal mode by:

- Pressing the Change View button in the upper-left hand corner
- Selecting View Compact from the contextual menu



Internet

Connecting to the Internet

To connect im240 Wireless Modem to the Internet or an intranet, complete the following steps.

Laptop

1 Start the im240 Wireless Modem Dashboard program on your laptop. To do this select **Start > Programs > Motorola > im240 Dashboard** or double-click the shortcut on your desktop. The Dashboard interface window appears.

2 Click to Connect.

3 As the connection starts, you will see the following messages:

- Powering On
- Seeking Signal
- Registering and Dialing to Network

You may now use your modem to access the internet, your Web-based email, FTP server, etc.

Pocket PC

Note: Do not start a data session while the Pocket PC is connected to the host computer and ActiveSync is running.

1 Start im240 Wireless Modem Status on your Pocket PC. To do this, go to the Start button and select Programs. Then tap on the im240 Wireless Modem icon.

2 Tap **Connect**.

3 As the connection starts, you will see the following messages:

- Connecting
- Connected

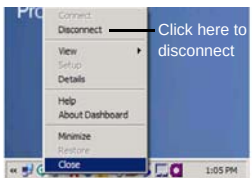
You may now use your modem to access the Internet, your Web-based email, FTP server, etc.

Disconnecting from the Internet

Laptop

- If your Dashboard is open click the green disconnect button

- If the Dashboard is closed, you can open it by double-clicking the im240 Wireless Modem icon in the system tray, or
- Right-click the im240 Wireless Modem icon in the system tray. Select Disconnect



Pocket PC

1 If the im240 Wireless Modem Dashboard is closed, open it by tapping the im240 Wireless Modem icon located at the bottom right of your screen.

2 Then tap **Disconnect**.

Data Connectivity

You can perform the following types of data connections with the im240 Wireless Modem.

- **Packet data:** Access the Internet, send and receive e-mail, and transfer files over the packet data network using standard IP protocols.
  - Packet data transmits packets (blocks) of data at high speed. After the data is transmitted, you can remain connected without being charged for the idle time.

- **Circuit data:** Access an ISP or your corporate server with a PPP dial-up connection to send and receive data over the circuit-switched cellular channel, just as you would using a standard telephone network.

  Circuit data provides a dedicated connection for transmitting data. The connection is maintained until broken by one of the connected parties. You can use the im240 wireless modem to connect to the internet or to a corporate server using a PPP or dial-up network connection (circuit data). Contact your ISP or IT department for specific instructions on setting up a modem to access their server. You will need to obtain the phone number of the ISP or corporate server, as well as your network user name and password.

Connecting via Packet Data

You can run any standard TCP/IP application during a packet data session.

Note: During an active packet data session, any software configured for use with other service providers may need to be reconfigured for use with your service provider.

Connecting via Circuit Data

Before attempting to use your im240 Wireless Modem to connect to the internet via circuit data, contact your Internet Service Provider (ISP) for instructions on setting up your modem to access their server.

Modem Status

Launching the im240 Wireless Modem Dashboard

The Dashboard is the program you can use to manage and monitor your im240 Wireless Modem connections. The Dashboard allows you to:

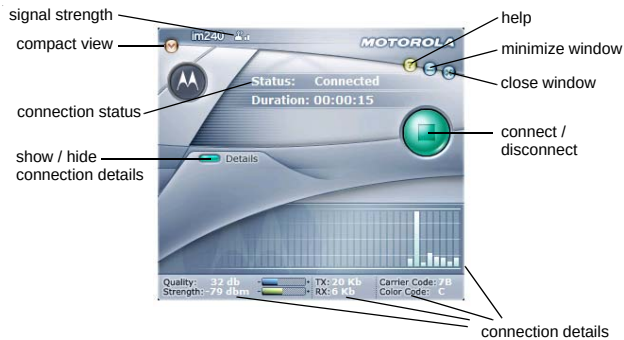
- Determine signal strength, and other network parameters
- Monitor the status of the im240 Wireless Modem
- Initiate data connections
- Enable or disable SIM security that prevents others from using your SIM card if it is lost or stolen. See “Enabling the SIM PIN” on page 4

You can launch the im240 Wireless Modem Dashboard by:

- Double clicking the im240 Wireless Modem desktop icon
- Selecting **Start > Programs > Motorola > im240 Dashboard**

The im240 Wireless Modem Dashboard Window

Laptop



Common Functionality

Using your laptop, in compact or extended mode, you can:

- Access the Contextual Menu. Right-click the Dashboard to bring up the contextual menu
- Drag the Dashboard around by left-clicking and dragging anything on the dashboard (except buttons)
- Close. Use the Exit button to hide the Dashboard. The application will still be available in the system tray
- Minimize. Pressing the Minimize button will minimize the application to the taskbar
- Help. This will bring up the Help feature

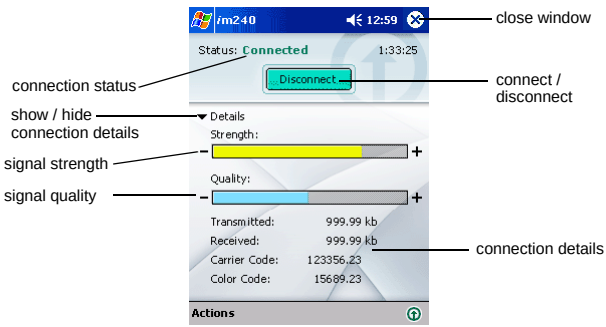
Modem Status

- Change View. Changes the view of the Dashboard from Normal to Compact and vice versa. Keyboard access. You can access all functionality using the keyboard

The Details Screen graph shows number of bytes sent and received:

- A new bar will be displayed every 500 ms. All bars will be shifted to the left, and the new bar will be displayed at the far right

Pocket PC



Getting Status Information

Status Light

The LED status light located on the end of the im240 Wireless Modem indicates your service status of your modem.

When Using Modem

Status Light	im240 Wireless Modem Status
Flashing Red	Registering. Your modem is registering with your service providers' network. Please wait.
Solid Red	No service. Your modem can not register with the network. The modem will continue trying to register every two minutes until it is powered off.

Status Light	im240 Wireless Modem Status
Flashing Amber	Unit registered. No packet data service. Circuit data calls can be performed in this mode.
Flashing Green	In service. Your modem has successfully completed packet data registration.
Solid Green	Transmitting or receiving data.

Uninstalling Modem Software

You may want to uninstall the im240 Wireless Modem Installation and Application software. If you do this, you will be unable to use your modem until you reinstall the software.

Note: The steps in this procedure may vary slightly depending on your operating system.

To uninstall im240 Wireless Modem Installation and Application Software, follow the steps described here.

Laptop

1 Select **Start > Programs > Motorola im240 Wireless Modem > Uninstall im240 Wireless Modem**.

Pocket PC

1 Remove or disconnect the im240 Wireless Modem from the PCMCIA slot of your Pocket PC.

2 Go to the Start button and choose **Settings**.

3 Choose the **System** tab.

4 Tap **Remove Programs**.

5 Choose **MOTOROLA im240 Wireless Modem** and tap **Remove**.

6 Confirm the removal of the software by tapping **Yes**.

7 A message stating **Uninstall completed successfully** appears. Tap **OK**.

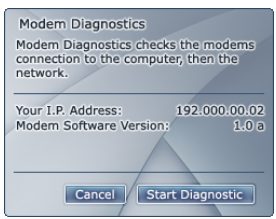
Troubleshooting

Diagnostics

You can diagnose both the connection to the network and the modem connection to the computer by selecting ‘Test’ from the Dashboard setup.

In the new window, there will be instructional text and fields that show the users IP address and Modem Software Version.

From this screen you can start the diagnostic process.


Modem Diagnostics
Modem Diagnostics checks the modems connection to the computer, then the network.
Your I.P. Address: 192.000.00.02
Modem Software Version: 1.0 a
Cancel
Start Diagnostic

When you start the diagnostic process, the screen changes and an animation begins to indicate the start of the diagnostic process. The following get checked as they are diagnosed:

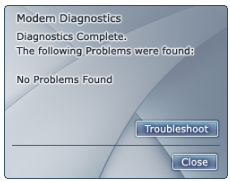
- Connection to the Computer
- Connection to the Network

If the diagnosis is successful, the given connection will have a ✔. If the diagnosis failed, the connection will have a !.

While the diagnostics for each connection is being performed, a clock icon will display.

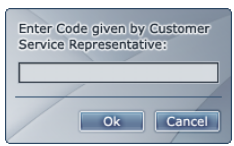
After the diagnostics are completed, the screen refreshes to show what problems were encountered, if any. From here, you can choose to Master Reset the modem, Troubleshoot, or close the diagnostics.

If no problems were found, the text should read, “No Problems Found.”



Registration

If you have significant trouble connecting the modem to either the network or your own computer, call customer service. A customer service representative will instruct you to enter a pass code that will unlock a detailed diagnostic screen.



The detailed diagnostic screen will help you accurately diagnose the problem.

Manually Configuring im240 Wireless Modem

On Some Tablet PCs it has been noted that the im240 fails to install successfully. The Windows "**Found New Hardware Wizard**" will report an error message "**This device cannot start. (Code 10)**". This is due to the OS not being able to assign the IRQ to the modem. Due to this the Dashboard installation program will not be able to finish the modem installation properly. If you get the above error message follow the steps below to resolve this issue without exiting from the Dashboard installation.

1. Click Start **>Control Panel** and double click **System**.

   Note: If Control Panel is not found in the Start menu, click **Start >Settings >Control Panel**

2. Click **Hardware Tab** and then click **Device Manager**.
3. Locate the "**Motorola im240 PC Card modem**" and double click to view the properties.
4. Click on the **Resources Tab**.
5. Click on the "**Set Configuration Manually**" button.
6. Uncheck "**Use automatic settings**" check box.
7. Change Setting based on to "**Basic configuration 0001**".
8. In Resource settings, select **IRQ**.
9. Click on the "**Change Setting**" button to open the "**Edit Interrupt Request**" dialog box.
10. Select an IRQ which will not conflict with any other device. This can be verified in the Conflict information status box. If it says No devices are conflicting then that IRQ can be selected.
11. Click **OK** to close the "**Edit Interrupt Request**" dialog box.
12. Click **OK** to close the "**Motorola im240 PC Card Modem Properties**" dialog box.
13. Click **Yes** to confirm the manual resource settings.
14. The Modem should now be installed properly.

After following the steps above continue with the Dashboard installation.

Safety and General Information

IMPORTANT INFORMATION ON SAFE AND EFFICIENT OPERATION.

READ THIS INFORMATION BEFORE USING YOUR MOTOROLA IM240 WIRELESS MODEM.

RF Operational Characteristics

Your Motorola product contains a radio frequency transmitter to convey the information you wish to send as well as occasional automatic signals used to sustain connection to the wireless network, and a receiver which enables you to receive communication and connection information from the network.

Antenna Care

Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the radio product and may violate FCC regulations. When using any approved accessory antenna, position it at least eight inches (20 cm) from any part of any person.

DO NOT hold the antenna when the radio product is "IN USE". Holding the antenna affects call quality and may cause the product to operate at a higher power level than needed.

Portable Radio Product Operation and EME Exposure

Your Motorola product is designed to comply with the following national and international standards and guidelines regarding exposure of human beings to radio frequency electromagnetic energy (EME):

- United States Federal Communications Commission, Code of Federal Regulations; 47 CFR part 2 sub-part J.
- American National Standards Institute (ANSI) / Institute of Electrical and Electronics Engineers (IEEE). C95. 1-1992.
- Institute of Electrical and Electronics Engineers (IEEE). C95. 1-1999 Edition.
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998.

- Ministry of Health (Canada). Safety Code 6. Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz, 1999.
- Australian Communications Authority Radiocommunications (Electromagnetic Radiation - Human Exposure) Standard 2003
- ANATEL, Brasil Regulatory Authority, Resolution 303 (July 2, 2002) “Regulation of the limitation of exposure to electrical, magnetic, and electromagnetic fields in the radio frequency range between 9 kHz and 300 GHz.” "Attachment to Resolution 303 from July 2, 2002."

The iM240 modem card has been tested for compliance with FCC / IC RF exposure limits in laptop computer configurations with side PCMCIA slots, and palmtop computers with rear PCMCIA slots, and can be used in laptop computers and palmtop computers with substantially similar physical dimensions, construction, and electrical and RF characteristics.

Your wireless modem is designed and manufactured to operate with the antenna in the vertical position. To assure optimal radio product performance and make sure exposure to radio frequency electromagnetic energy is within the guidelines set forth in the above standards, be sure always to put the antenna in the vertical position when operating the wireless modem in any computer that is sitting on your body.

Approved Accessories

For a list of approved Motorola accessories call 1-800-453-0920, or visit our website at www.motorola.com/iden

ALL MODELS WITH FCC ID AZ489FT5834 MEET THE GOVERNMENT’S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your wireless modem is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless modems employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg.[1] Tests for SAR are conducted using standard operating positions reviewed by the FCC with the modem transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the modem while operating can be

well below the maximum value. This is because the modem is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

Before a modem model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations as required by the FCC for each model. The highest SAR value for this radio product when tested for use during packet data transmission is 1.19 W/kg.

The FCC has granted an Equipment Authorization for this modem with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this modem is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/oet/fccid after searching on FCC ID AZ489FT5834.

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) web-site at http://www.wow-com.com.

[1] In the United States and Canada, the SAR limit for modems used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.

[2] The SAR information reported to the FCC includes the FCC-accepted Motorola testing protocol, assessment procedure, and measurement uncertainty range for this product.

Electro Magnetic Interference/Compatibility

Note: Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed or otherwise configured for electromagnetic compatibility.

Facilities

To avoid electromagnetic interference and/or compatibility conflicts, turn off your modem product in any facility where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensitive to external RF energy.

Aircraft

When instructed to do so, turn off your modem product when on board an aircraft. Any use of a modem product must be in accordance with applicable regulations per airline crew instructions.

Medical Devices

Pacemakers

The Advanced Medical Technology Association (AdvaMed) recommends that a minimum separation of 6 inches (15 cm) be maintained between a wireless modem product and a pacemaker. These recommendations are consistent with those of the U.S. Food and Drug Administration.

Persons with pacemakers should:

- ALWAYS keep the modem product more than 6 inches (15 cm) from their pacemaker when the modem product is turned ON.
- Turn the modem product OFF immediately if you have any reason to suspect that interference is taking place.

Hearing Aids

Some digital wireless modem products may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.

Other Medical Devices

If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from RF energy. Your physician may be able to assist you in obtaining this information.

Operational Warnings

For Vehicles with an Air Bag

Do not place a portable modem product in the area over the air bag or in the air bag deployment area. Air bags inflate with great force. If a portable modem is placed in the air bag deployment area and the air bag inflates, the modem product may be propelled with great force and cause serious injury to occupants of the vehicle.

Potentially Explosive Atmospheres

Turn off your modem product prior to entering any area with a potentially explosive atmosphere, unless it is a modem product type especially qualified for use in such areas as “Intrinsically Safe” (for example, Factory Mutual, CSA, or UL approved). Sparks in a potentially explosive atmosphere can cause an explosion or fire resulting in bodily injury or even death.

Note: The areas with potentially explosive atmospheres referred to above include fueling areas such as below decks on boats, fuel or chemical transfer or storage facilities, areas where the air contains chemicals or particles, such as grain, dust or metal powders, and any other area where you would normally be advised to turn off your vehicle engine. Areas with potentially explosive atmospheres are often but not always posted.

Blasting Caps and Areas

To avoid possible interference with blasting operations, turn off your modem product when you are near electrical blasting caps, or in a blasting area. Obey all signs and instructions.

Operational Cautions

Cleaning and Drying Considerations

This product is not water proof, and exposing the unit to liquids may result in permanent damage to the unit.

If your modem product interior gets wet, then do not try to accelerate drying with the use of an oven or a dryer as this will damage the modem product and void the warranty. Instead, do the following:

1 Immediately power off the modem product.

2 Remove SIM card (if so equipped) from modem product.

3 Shake excess liquid from modem product.

4 Place the modem product in an area that is at room temperature and has good air flow.

5 Let the modem product and SIM card dry for 72 hours before powering on the modem product.

If the modem product does not work after following the steps listed above, contact your dealer for servicing information.

Clean the external surfaces of the modem product with a damp cloth, using a mild solution of dishwashing detergent and water. Some household cleaners may contain chemicals that could seriously damage the modem product. Avoid the use of any petroleum-based solvent cleaners. Also, avoid applying liquids directly on the modem product.

MOTOROLA LIMITED WARRANTY

Note: FOR IDEN SUBSCRIBER PRODUCTS, ACCESSORIES AND SOFTWARE PURCHASED IN THE UNITED STATES OR CANADA

What Does this Warranty Cover?

Subject to the exclusions contained below, Motorola, Inc. warrants its Motorola iDEN Digital Mobile ("Products"), Motorola-branded or certified accessories sold for use with these Products ("Accessories") and Motorola software contained on CD-Roms or other tangible media and sold for use with these Products ("Software") to be free from defects in materials and workmanship under normal consumer usage for the period(s) outlined below. **This limited warranty is a consumer's exclusive remedy, and applies as follows to new Products, Accessories and Software purchased by consumers in the United States or Canada, which are accompanied by this written warranty:**

PRODUCTS COVERED	**LENGTH OF COVERAGE**
Products as defined above.	**One (1) year** from the date of purchase by the first consumer purchaser of the product.
Accessories as defined above.	**One (1) year** from the date of purchase by the first consumer purchaser of the product.
Products or Accessories that are Repaired or Replaced.	**The balance of the original warranty or for ninety (90) days** from the date returned to the consumer, whichever is longer.
Software as defined above. Applies only to physical defects in the media that embodies the copy of the software (e.g. CD-ROM, or floppy disk).	**Ninety (90) days from the date of purchase.**

What is not covered? (Exclusions)

Normal Wear and Tear. Periodic maintenance, repair and replacement of parts due to normal wear and tear are excluded from coverage.

Abuse & Misuse. Defects or damage that result from: (a) improper operation, storage, misuse or abuse, accident or neglect, such as physical damage (cracks, scratches, etc.) to the surface of the product resulting from misuse; (b) contact with liquid, water, rain, extreme humidity or heavy perspiration, sand, dirt or the like, extreme heat, or food; (c) use of the Products or Accessories for commercial purposes or subjecting the Product or Accessory to abnormal usage or conditions; or (d) other acts which are not the fault of Motorola, are excluded from coverage.

Use of Non-Motorola Products and Accessories. Defects or damage that result from the use of Non-Motorola branded or certified Products, Accessories, Software or other peripheral equipment are excluded from coverage.

Unauthorized Service or Modification. Defects or damages resulting from service, testing, adjustment, installation, maintenance, alteration, including without limitation, software changes, or modification in any way by someone other than Motorola, or its authorized service centers, are excluded from coverage.

Altered Products. Products or Accessories with (a) serial numbers or date tags that have been removed, altered or obliterated; (b) broken seals or that show evidence of tampering; (c) mismatched board serial numbers; or (d) nonconforming or non-Motorola housings, antennas, or parts, are excluded from coverage.

Communication Services. Defects, damages, or the failure of Products, Accessories or Software due to any communication service or signal you may subscribe to or use with the Products, Accessories or Software is excluded from coverage.

Software Embodied in Physical Media. No warranty is made that the software will meet your requirements or will work in combination with any hardware or software applications provided by third parties, that the operation of the software products will be uninterrupted or error free, or that all defects in the software products will be corrected.

Software NOT Embodied in Physical Media. Software that is not embodied in physical media (e.g. software that is downloaded from the internet), is provided "as is" and without warranty.

Who is covered? This warranty extends only to the first consumer purchaser, and is not transferable.

What will Motorola Do? Motorola, at its option, will at no charge repair, replace or refund the purchase price of any Products, Accessories or Software that does not conform to this warranty. We may use functionally equivalent reconditioned/refurbished/pre-owned or new Products, Accessories or parts. No data, software or applications added to your Product, Accessory or Software, including but not limited to personal contacts, games and ringer tones, will be reinstalled. To avoid losing such data, software and applications please create a back up prior to requesting service.

How to Obtain Warranty Service or Other Information? To obtain service or information, please call:

Motorola iDEN Customer Services 1-800-453-0920 or 954-723-4910

TTY-877-483-2840

Or visit us online at http://www.motorola.com/iden/support

You will receive instructions on how to ship the Products, Accessories or Software, at your expense, to a Motorola Authorized Repair Center. To obtain service, you must include: (a) a copy of your receipt, bill of sale or other comparable proof of purchase; (b) a written description of the problem; (c) the name of your service provider, if applicable; (d) the name and location of the installation facility (if applicable) and, most importantly; (e) your address and telephone number.

What Other Limitations Are There? ANY IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY, OTHERWISE THE REPAIR, REPLACEMENT, OR REFUND AS PROVIDED UNDER THIS EXPRESS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER, AND IS PROVIDED IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OF IMPLIED. IN NO EVENT SHALL MOTOROLA BE LIABLE, WHETHER IN CONTRACT OR TORT (INCLUDING NEGLIGENCE) FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, ACCESSORY OR SOFTWARE, OR FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA, SOFTWARE OR APPLICATIONS OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE ABILITY OR INABILITY TO USE THE PRODUCTS, ACCESSORIES OR SOFTWARE TO THE FULL EXTENT THESE DAMAGES MAY BE DISCLAIMED BY LAW.

Some states and jurisdictions do not allow the limitation or exclusion of incidental or consequential damages, or limitation on the length of an implied warranty, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state or from one jurisdiction to another.

Laws in the United States and other countries preserve for Motorola certain exclusive rights for copyrighted Motorola software such as the exclusive rights to reproduce and distribute copies of the Motorola software. Motorola software may only be copied into, used in, and redistributed with, the Products associated with such Motorola software. No other use, including without limitation disassembly of such Motorola software or exercise of the exclusive rights reserved for Motorola, is permitted.

Patent and Trademark Information

MOTOROLA, the Stylized M Logo and all other trademarks indicated as such herein are trademarks of Motorola, Inc. ® Reg. U.S. Pat. & Tm. Off. © 2004 Motorola, Inc. All rights reserved.

Microsoft, Microsoft Internet Explorer, Windows NT, Windows 2000, Windows XP, Pocket PC 2002, and Pocket PC 2003 are registered trademarks of Microsoft Corporation.

All other product or service names mentioned in this manual are the property of their respective trademark owners.

Software Copyright Notice

The Motorola products described in this manual may include copyrighted Motorola and third party software stored in semiconductor memories or other media. Laws in the United States and other countries preserve for Motorola and third party software providers certain exclusive rights for copyrighted software, such as the exclusive rights to distribute or reproduce the copyrighted software. Accordingly, any copyrighted software contained in the Motorola products may not be modified, reverse-engineered, distributed, or reproduced in any manner to the extent allowed by law. Furthermore, the purchase of the Motorola products shall not be deemed to grant either directly or by implication, estoppel, or otherwise, any license under the copyrights, patents, or patent applications of Motorola or any third party software provider, except for the normal, non-exclusive, royalty-free license to use that arises by operation of law in the sale of a product.

Index

A

Accessories
- approved **26**
- safety **30**

Antenna
- detachable, using **13**
- external, using **13**

C

Circuit Data **18**

Circuit data
- internet, connecting **18**

Circuit-switched data
- description **18**

D

Dashboard
- compact mode **14**
- internet, connecting **16**
- internet, disconnecting **17**
- status info **20**
- using **19**

E

EME Exposure **25**

H

Hardware
- Pocket PC **6**

I

Installation
- IBM-compatible PC **6**
- operating systems **6**
- Pocket PC **6**
- requirements **6**

Internet
- connecting **16**
- connecting using circuit data **18**
- connecting using packet data **17, 18**
- disconnecting **17**

M

Medical devices
- hearing aids **28**
- other **28**
- pacemaker **28**

Modem
- hardware **20**
- status light **20**
- turning on **14**
- using **12**

Modem setup **7**
- inserting modem **6**
- installing software, laptop **7, 8**
- installing software, Pocket PC **11**

Modem software
- uninstalling **21**

P

Packet data **17**
- internet, connecting **18**

Patent information **33**

R

RF Operational Characteristics **25**

S

Safety **25**
- accessories **30**
- electromagnetic interference **27**

EME Exposure **25**
medical devices **28**
Safety info **25**
SIM
SIM PIN **2**
SIM card
personal identification number (PIN) **4**
unblocking **5**
unlocking **5**
SIM PIN
disabling **2**
enabling **2**
Software
uninstalling **21**
System
requirements **6**
System requirements **6**

T

Trademark information **33**
Troubleshooting
diagnostics **22**
registration **23**

W

Warnings
operational **28**